## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000436 Address: 333 Burma Road **Date Inspected:** 12-Sep-2007

City: Oakland, CA 94607

**OSM Arrival Time:** 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Ye Yongjun and Xu Bing **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** 144 meter mock-up

## **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector Sherri Brannon arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions. While on site the QA Inspector observed and/or discovered the following.

### 114 Meter Mockup-skin plate C:

QA Inspector Brannon randomly observed ZPMC qualified welder Mr. He Shibing ID #066243 fillet welding lifting devices to skin plate C. Mr. Shibing was observed welding in the 2F (horizontal) position utilizing shielded metal arc welding (SMAW) process with a 4.0mm diameter electrode, filler metal brand TL-508, class E7018 manual. Mr. Shibing appeared to be using proper inter-pass cleaning methods. QA Inspector Brannon observed the ZPMC QC Inspector Ye Yongjun verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification (WPS). QA Inspector Brannon also verified the preheat temperature to be a minimum of 110°C and measured the welding parameters to be 168 amps. Welding parameters measured by QA Inspector Brannon appear to be in general compliance with the approved WPS-B-P-2112, Revision 0.

#### 114 Meter Mockup-skin plate E:

QA Inspector Brannon randomly observed ZPMC personnel performing heat straightening on skin plate E in the weld area at weld joint #5. QA Inspector Brannon observed the ZPMC QC Inspector Xu Bing.

# 114 Meter Mockup-skin plate B:

QA Inspector Brannon randomly observed ZPMC personnel removing run off tab on skin plate B by method of carbon air arc gouging and grinding.

# WELDING INSPECTION REPORT

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The following digital photograph illustrates ZPMC in the process of heat straightening weld joint #5 skin plate E.



# **Summary of Conversations:**

No relevant conversations on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Brannon,Sherri	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer